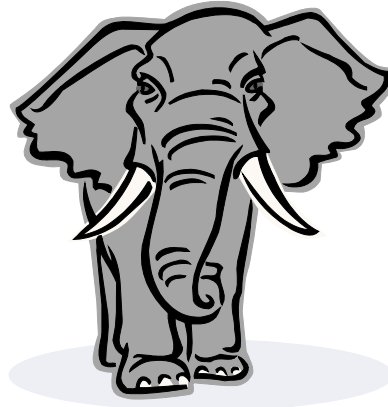


Compare and Contrast



© 2002 John P. Clare
(www.caudata.org)
<http://www.caudata.org/daphnia/>



Feb 28 - 7:40 PM

When Linnaeus classified animals in the 1700's, he counted 4,300. There are now over a million.

Many animals are important to each other. Give an example.

eagle → mouse

shark → fish

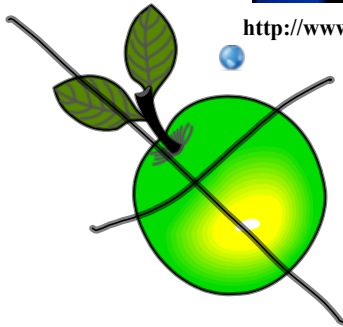
spider → fly

Feb 28 - 7:43 PM

Heterotroph -they cannot make their own food

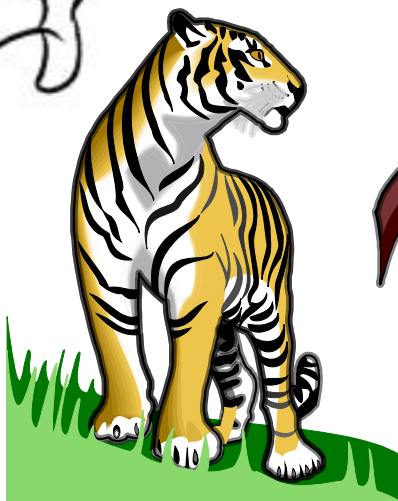


<http://www.imagequest3d.com/photos/zooplankton/index.htm>



Feb 28 - 7:45 PM

Mobility -They can perform rapid, complex movements. Some can walk, swim, crawl, run, and fly.

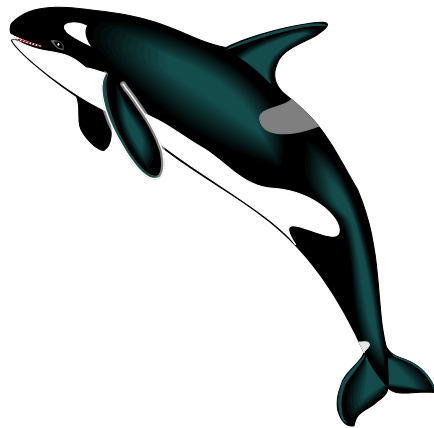


Feb 28 - 7:50 PM

Multicellularity-all animals are multicellular, some are microscopic and some are as big as city buses. There is little difference in cell size.

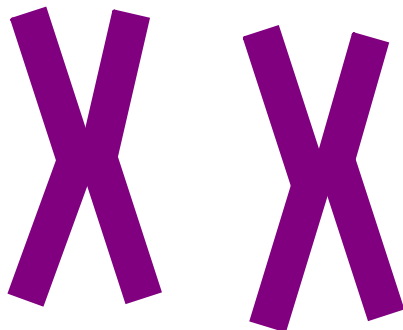


<http://www.caudata.org/daphnia/>



Feb 28 - 7:53 PM

Diploidy-animals have 2 copies of each chromosome, one from the father and one from the mother



Feb 28 - 7:55 PM

Sexual Reproduction-
almost all animals

reproduce sexually

Absence of cell wall- of the
multicellular organisms only

animals lack a cell wall



Feb 28 - 7:58 PM

Choose an animal and give
evidence for each of the following.

Heterotrophic

Mobility

Multicellular

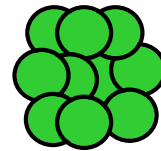
Diploidy

Lacking Cell Walls

Sexual Reproduction

Feb 28 - 8:00 PM

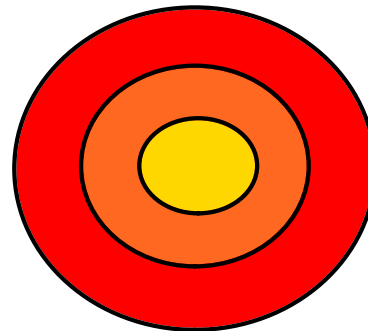
Blastula-hollow ball of cells



Ectoderm-outer layer of tissue

Mesoderm-middle layer of tissue

Endoderm-inner layer of tissue



Feb 28 - 8:23 PM

Ecto

Skin
Eyes
Nervous
System

Meso

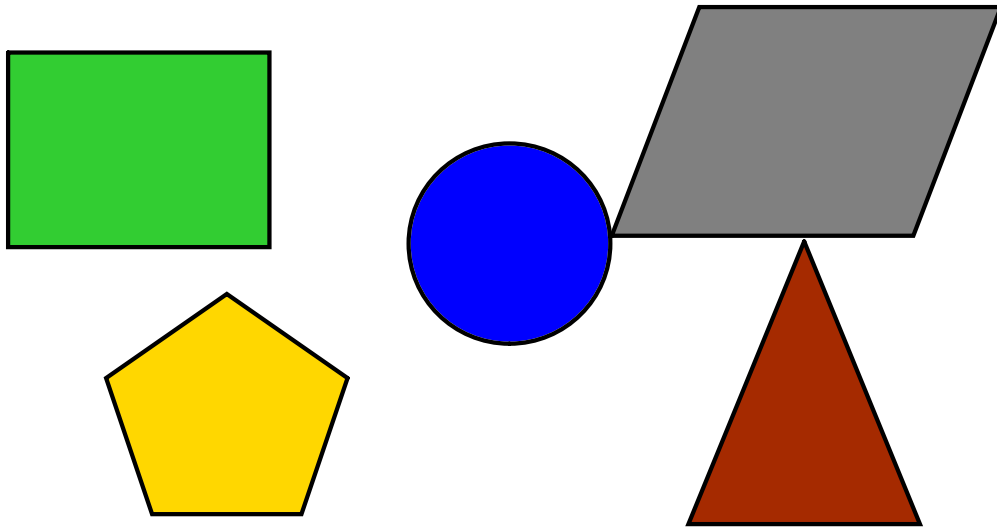
Muscles
Skeleton
Veins

Endo

Glands
Lungs
Stomach

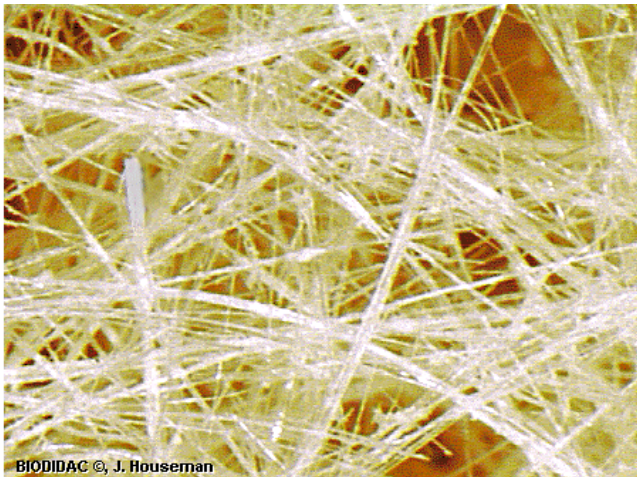
Feb 28 - 8:30 PM

Body Plan- a term used to describe an animals shape.



Mar 2 - 5:21 PM

Asymmetrical- lacking in shape



BIODIDAC ©, J. Houseman

<http://cas.bellarmine.edu/tietjen/images/HEXA004P.GIF>

Mar 2 - 5:24 PM

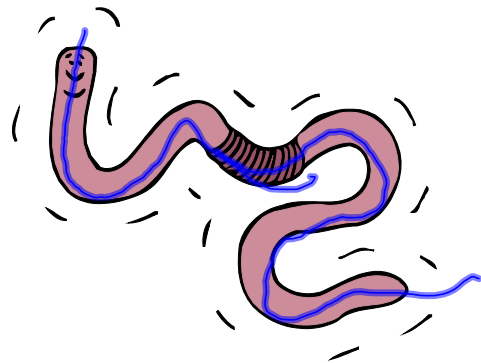
Radial symmetry- body parts all arranged around a central axis



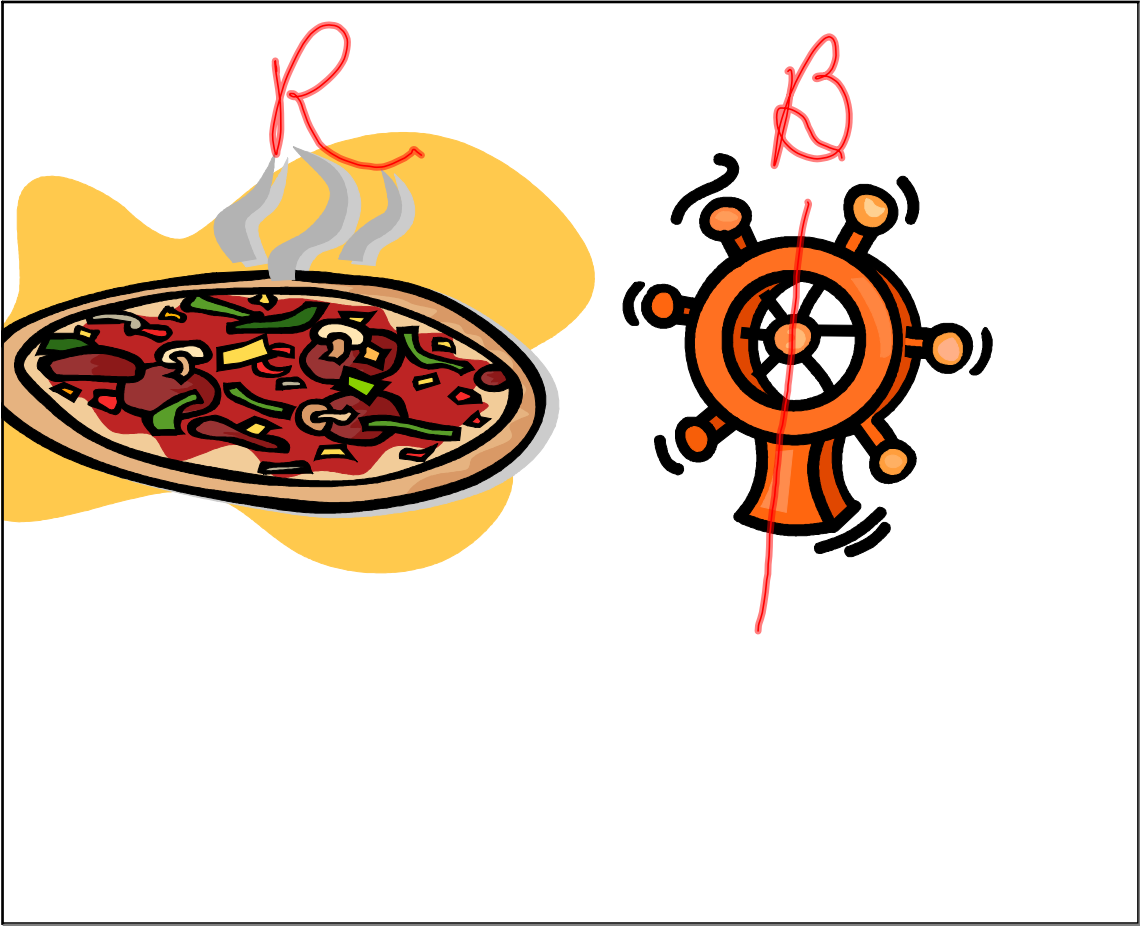
<http://www.cyhaus.com/marine/anemone.htm>

Mar 2 - 5:28 PM

Bilateral Symmetry- distinct left and right halves



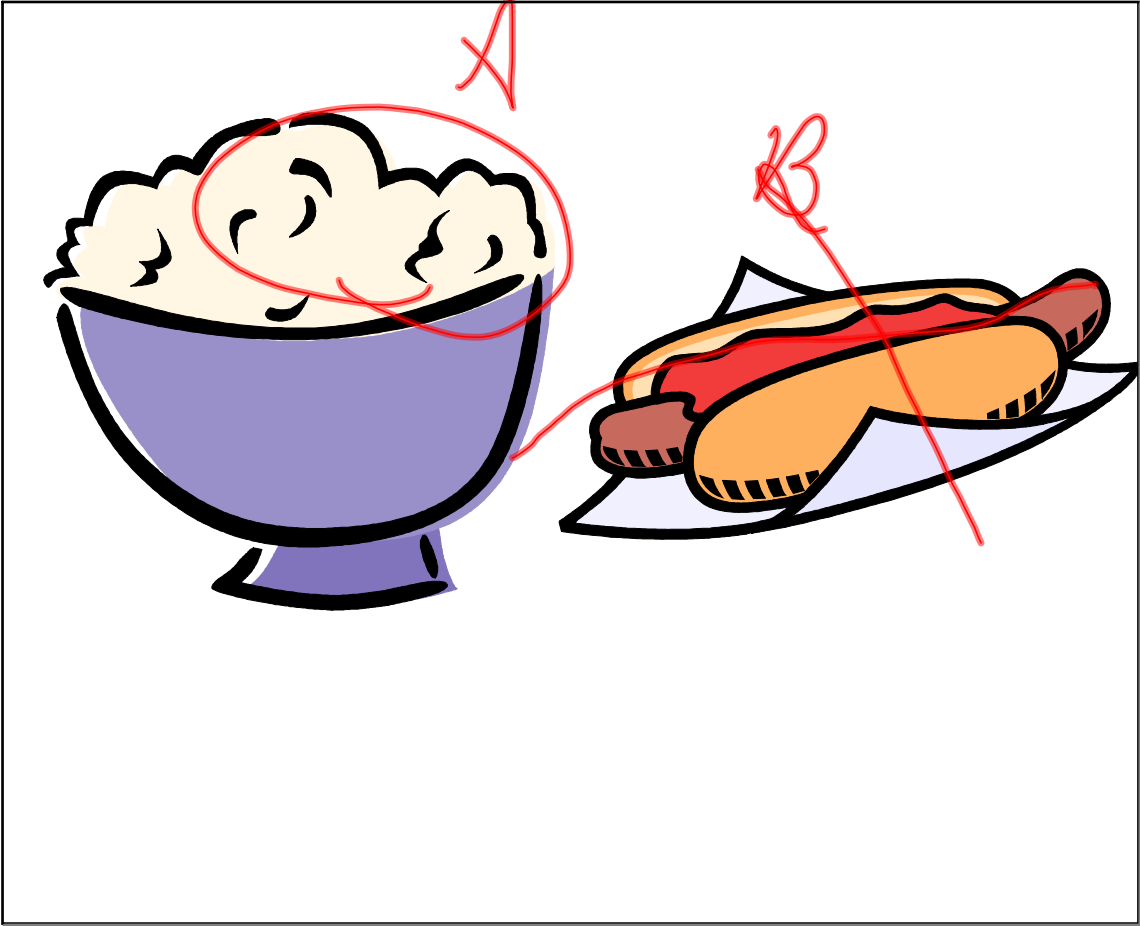
Mar 2 - 5:31 PM



Mar 2 - 5:27 PM



Mar 2 - 5:29 PM

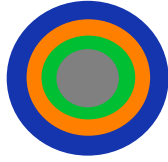


Mar 2 - 5:33 PM

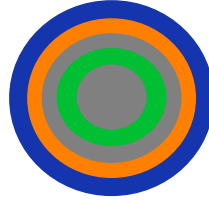


Mar 2 - 5:34 PM

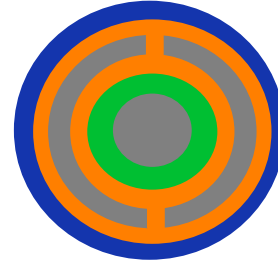
Bilaterally symmetrical animals have one of three basic body plans.
Body Cavity Types



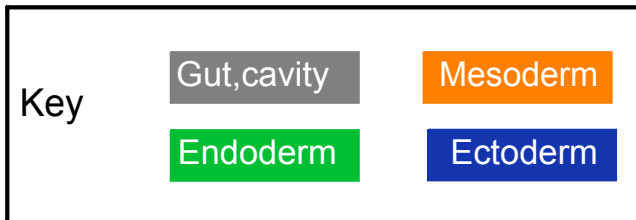
Acelomates



Pseudocoelomates

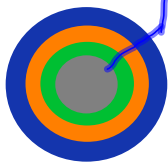


Coelomates



Mar 3 - 12:58 PM

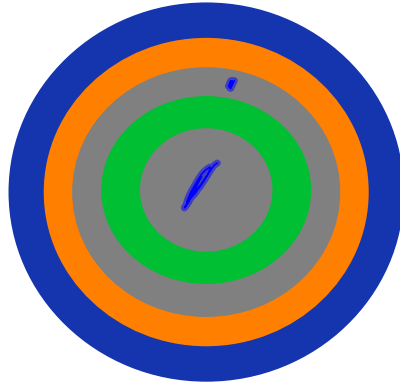
Acelomates- animals with no body cavity



The space between the gut and the wall is completely filled with tissue.

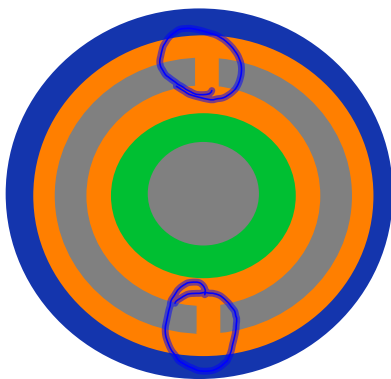
Mar 3 - 2:59 PM

Pseudocoelomates- have a body cavity located between the mesoderm and the endoderm.



Mar 3 - 3:01 PM

Coelomates- a body cavity located entirely within the mesoderm.

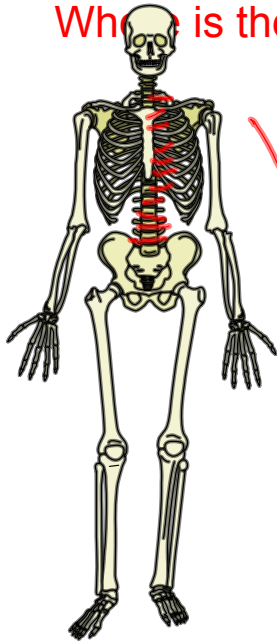


The gut and other organs are suspended in the coelom.

Mar 3 - 3:02 PM

Advanced organism show segmentation.

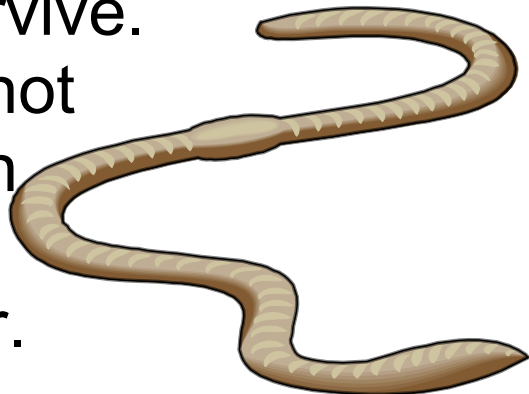
What is the segmentation in humans?



vertebral

Mar 3 - 3:03 PM

In an earthworm each segment repeats many of the organs so injured animals can still survive. The segments are not independent though materials still pass from one to another.



How?

intestines

Mar 3 - 3:05 PM

| Phylum | Evolutionary Milestone |
|-----------------|------------------------|
| Chordata | Notocord |
| Echinodermata | Deuterostomes |
| Arthropoda | Jointed Appendages |
| Annelida | Segmentation |
| Mollusca | Coelom |
| Nematoda | Pseudocoelom |
| Platyhelminthes | Bilateral Symmetry |
| Cnidaria | Tissues |
| Porifera | Multicellularity |